

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
15 January 2004 (15.01.2004)

PCT

(10) International Publication Number  
**WO 2004/004571 A2**

(51) International Patent Classification<sup>7</sup>: **A61B 8/00**

(21) International Application Number:

PCT/IL2003/000569

(22) International Filing Date: 9 July 2003 (09.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
150656 9 July 2002 (09.07.2002) IL

(71) Applicant (for all designated States except US):  
THERA-SONICS ULTRASOUND TECHNOLOGIES LTD. [IL/IL]; Zemach, 15132 Jordan Valley (IL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): KATZ, Li-Hai [IL/IL];  
4 Golda Meir Street, 34982 Haifa (IL).

(74) Agents: LUZZATTO, Kfir et al.; Luzzatto & Luzzatto,  
P.O. Box 5352, 84152 Beersheva (IL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CII, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



**WO 2004/004571 A2**

(54) Title: METHOD AND APPARATUS FOR STOPPING AND DISSOLVING ACOUSTICALLY ACTIVE PARTICLES IN FLUID

(57) Abstract: The invention presents a method for selectively slowing the motion of acoustically active particles immersed in a flowing fluid, eventually stopping their motion, holding them in place by pushing them against a surface or against the flow of said flowing fluid, and/or breaking up said acoustically active particles into smaller particles and/or dissolving them. The invention also relates to various systems that utilize this method.